

claims currently pending in this application are being reproduced below for the Examiner's convenience.

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1. (Three Times Amended) A linear motor, comprising:

a magnet;

a coil; and

a jacket having a comb-shaped member that extends along a driving direction, wherein a cooling medium flows through an inside space enclosed by said jacket, wherein said comb-shaped member includes base portions provided on inside faces of said jacket and pillar-like portions for connecting said base portions, and wherein the coil is supported by said base portions in a floating manner and is fixed, with respect to the driving direction, by being sandwiched by the pillar-like portions.

[Claim 2 is cancelled herein.]

3. (Amended) A linear motor according to Claim 1, wherein said linear motor includes a plurality of coils arrayed along the driving direction partially overlapping each other, wherein at least one of the coils has a bent end portion to avoid mutual interference of the partially overlapped portions of the coils, and wherein the coils are disposed with their central portions placed substantially at the same level.

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4. (Amended) A linear motor according to Claim 3, wherein said jacket has a central portion and a recessed portion on the outside the central portion, wherein the bent end portions of the coils are disposed at the recessed portion, and wherein the recessed portion reinforces the central portion.

5. (Amended) A linear motor according to Claim 1, wherein said jacket serves as a guide for an element to be driven by said linear motor.

6. (Three Times Amended) A stage system, comprising:
a linear motor as recited in Claim 1; and
a stage to be driven by said linear motor.

7. (Three Times Amended) An exposure apparatus, comprising:
a stage system as recited in Claim 6; and
an optical system for illuminating a substrate to be conveyed by said stage system.

8. (Three Times Amended) A device manufacturing method, comprising
the steps of:
applying a photosensitive material to a substrate;
exposing the substrate by use of an exposure apparatus as recited in Claim 7;
and

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developing the exposed substrate.

9. (Three Times Amended) A linear motor according to Claim 1, wherein said jacket has a reinforcement portion extending parallel to the driving direction.

10. (Unamended) A linear motor according to Claim 9, wherein said reinforcement portion is formed on an outside face of said jacket.

11. (Unamended) A linear motor according to Claim 9, wherein said reinforcement portion is formed at a position not interfering with relative motion of said magnet and said coil.

12. (Unamended) A linear motor according to Claim 9, wherein said reinforcement portion is made of one of aluminum, ceramics and resin.

13. (Unamended) A linear motor according to Claim 9, wherein said reinforcement portion is made integral with said jacket, and wherein said reinforcement portion is defined by a portion having a protruded shape with respect to a portion of said jacket where said magnet and said coil are opposed to each other.

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14. (Unamended) A linear motor according to Claim 13, wherein said jacket and said reinforcement portion being integral with each other are made of one of ceramics and resin.

15. (Unamended) A linear motor according to Claim 13, wherein the protruded shape portion of said jacket is spaced from said coil.

16. (Unamended) A linear motor according to Claim 9, wherein at least one of an upper half and a lower half of a section of said jacket taken along a plane perpendicular to the driving direction has a recessed portion.

[Claims 17-19 are cancelled herein]

20. (Twice Amended) A linear motor, comprising:
a magnet;
a plurality of coils; and
a coil holding member having recessed portions and pillar portions, in a comb-shape, disposed along a first direction, wherein each coil is supported, with respect to a second direction perpendicular to the first direction, by the recessed portions and it is fixed, with respect to the first direction, by being sandwiched by the pillar portions, the pillar portions being disposed along an outside periphery of the coils.

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21. (Amended) A linear motor according to Claim 20, wherein each coil has an inside void in which a portion of another coil is placed.

22. (Amended) A linear motor according to Claim 20, wherein each coil has an inside void in which plural pillar portions of said coil holding member are disposed along the first direction.

23. (Unamended) A linear motor according to Claim 20, wherein said coil holding member surrounds said coil, and wherein a temperature controlling medium is supplied into said coil holding member.

24. (Unamended) A stage system, comprising:
a linear motor as recited in Claim 20; and
a stage to be driven by said linear motor.

25. (Unamended) An exposure apparatus, comprising:
a stage system as recited in Claim 24; and
an optical system for illuminating a substrate to be conveyed by said stage system.

26. (Unamended) A device manufacturing method, comprising the steps of:
applying a photosensitive material to a substrate;